

***Bittacus bicornis*, a morphologically interesting new species
from Natal, South Africa (Mecoptera: Bittacidae)**

by

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ABSTRACT

Bittacus bicornis sp. n. is described from material collected in the Monk's Cowl area of the Natal Drakensberg. The species is unique in that it possesses a pair of dorsally-projecting, horn-like processes on the posterior margin of the eighth abdominal tergum. In other respects the species strongly resembles *B. testaceus* Klug, 1838.

INTRODUCTION

During the preparation of an up to date list of southern African bittacid material, the South African Museum, Cape Town (SAMC), sent me an unusual specimen, collected in the Monk's Cowl area of the Natal Drakensberg mountains, for identification. This male has a pair of extraordinary horn-like processes jutting out dorsally from the posterior margin of the eighth abdominal tergum. The species also possesses the attenuate epandrial lobes characteristic of the *testaceus* group of species (Tjeder 1956), and keys to *Bittacus testaceus* Klug, 1838 in the most recently published key to southern African Bittacidae (Londt 1978). As I consider the peculiar horned condition of tergum eight to be autapomorphic, clearly distinguishing the Monk's Cowl species from all known Afrotropical *Bittacus*, I here provide a description of the taxon.

***Bittacus bicornis* sp. n.**

(Figs 1–6)

Etymology: L. *bi* - two + *cornus* - horn. Refers to the pair of horn-like processes of tergum eight.

Description: Based on ♂ holotype: SOUTH AFRICA, Natal: 'S. Afr Natal / Monks Cowl Camp / 2929AB / 1460m / 9.12.1985 / V. B. Whitehead'. SAMC.

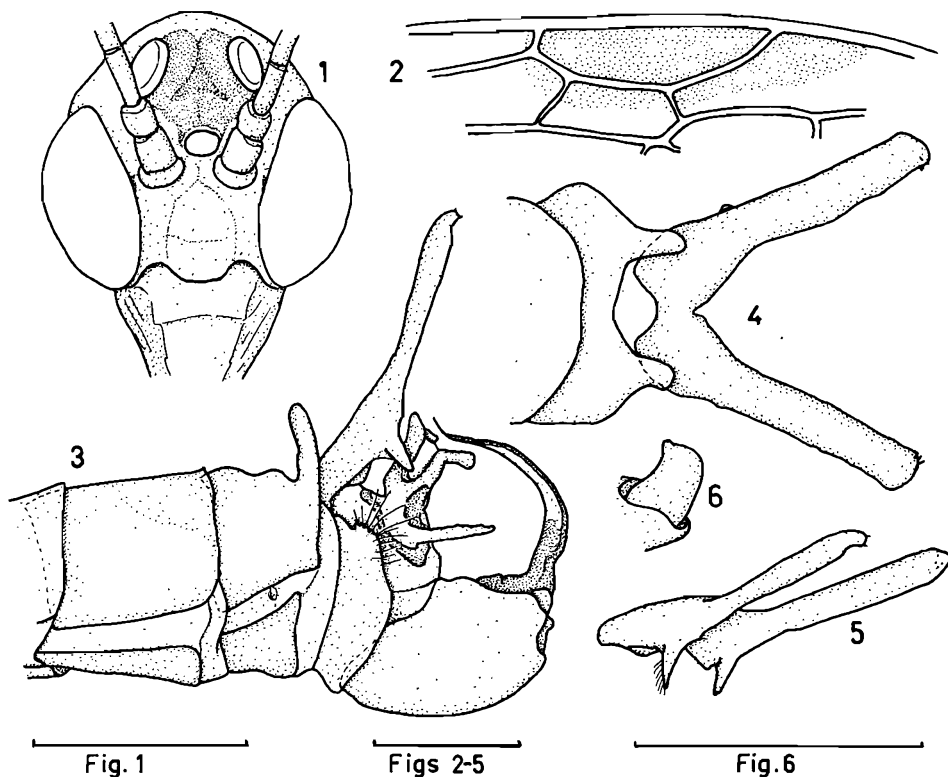
Head: Brown-yellow; base of proboscis below eyes red-brown; ocelli well developed (especially lateral ocelli), enclosed by a dark red-brown area (Fig. 1). Antennal segments brown-yellow proximally, dark red-brown distally.

Thorax: Uniform brown-yellow, lacking distinctive markings. Legs uniform brown-yellow, distal tips of tibiae and tarsomeres dark red-brown (femora lack dark tips). **Wings :** Forewing length (from base to tip) 20,8 mm, breadth (maximum) 3,7 mm; hindwing 18,9 x 3,5 mm; venation unremarkable; pterostigma (Fig. 2) approximately four times longer than broad; 2 pterostigmal crossveins in all four wings; 1 subcostal

crossvein which occurs well before a point midway between the origin and the first fork of the radial sector (FRs); 1 cubital crossvein (Cuv); 1 apical crossvein (between Cu and A_1) in all four wings; A_1 meets wing margin well before level of first fork of radial sector; first fork of medial vein lies just distal of an imaginary line drawn through FRs and Cuv.

Abdomen: Uniform brown-yellow; terga 7 and 8 with very narrow black antecostae; dorsally situated pheromone-secreting glands evident between terga 6-7 and 7-8. Terminalia as illustrated (Figs 3-6). Tergum 8 with pair of dorsally projecting, horn-like processes (Figs 3-4). Epandrial lobes elongate and extending well beyond fused gonocoxites; with pair of proximoventral pointed processes (Figs 3, 5); tips with 3 (left) or 4 (right) tiny, black, cone-shaped setae.

Habitat: Dr Vin Whitehead (*pers. comm.*) has informed me that the specimen was collected in rank vegetation along the banks of a stream adjacent to a stand of flowering *Bowkeria verticillata* trees. The site was close to the Warden's house at the Monk's Cowl Nature Reserve. The locality co-ordinates are approximately



Figs 1-6. *Bittacus bicornis* sp. n. holotype ♂ (Monk's Cowl). 1. Anterior view of head (excluding mouthparts) showing ocelli. 2. Pterostigma (right fore wing) showing extent of yellowish stain. 3-6. Terminalia. 3. Lateral view of entire terminalia. 4. Dorsal view of tergum eight and epandrium. 5. Oblique view of epandrial lobes. 6. Dorsal aspect of gonostyle. Scale lines = 1 mm.

29°02'S:29°25'E. This area was visited on 15-16 December 1992 in an attempt to gather more material, and although *B. nebulosus* Klug, 1838 was reasonably abundant in more shaded situations, no other species of *Bittacus* was encountered.

Relationships: *B. bicornis* closely resembles species belonging to the *testaceus* species group, which includes *B. testaceus*, *B. armatus* Tjeder, 1956 and *B. solitarius* Tjeder, 1956. The similarity is closest to *testaceus*, a species which also lacks the dark femoral tips seen in the other two species. *B. bicornis* runs to *testaceus* in my key to southern African Bittacidae (Londt 1978). The final specific identification needs to be made after a comparison of terminalia. The horn-like processes of tergum eight allows immediate recognition of *bicornis*.

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